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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,262	10/08/2003	Joseph L. Vilella	1791.DIV2	8240

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EXAMINER
DANG, DUY M

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/682,262	**Applicant(s)** VILELLA, JOSEPH L.	
	Examiner Duy M Dang	**Art Unit** 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2003*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-14* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *08 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations “said assemblies” in claim 6 line 4 and “said list of defects” in claim 9 line 2 lack sufficient antecedent basis for those limitations in the claims.

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 1-14 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-14 of copending Application No. 10/838,960 (referred as the copending application ‘960 hereinafter). This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Regarding claim 1, claim 1 of the copending application ‘960 teaches a method for visually inspecting electronic component assembly of a variety of components (see lines 1-3), said method comprises:

positioning said assemblies comprising a plurality of surface-mounted components of different types, colors, orientations and terminal lead spacings, within the view of a color digitizing camera (see lines 4-7);

obtaining via said camera, an image of said assembly including said surface-mounted components (see lines 8-9);

scanning said image to obtain a record of observed features including color, type, location and orientation of a variety of surface-mounted components, and terminal lead spacing data (see lines 10-13);

maintaining a database of a plurality of visually perceptible parameters of said features including colors (see lines 14-15);

numerically analyzing each of said observed features under a plurality of said visually perceptible parameters to locate defects therein (see lines 16-18); and

generating a graphical display indicating said defects (see lines 19-20).

It is noted that claims 2-14 of the instant invention are identical to claims 2-14 of the copending application '960. The examiner did express every features recited in the representative claim, instant claim 1, and pointed out all the corresponding features recited to the features recited in claim 1 of the copending application '960. Since this is the "same invention" double patenting type rejection under 35 USC 101 and the claim language are so identical between the two applications, there appears no reasons to address all the features recited in the dependent claims 2-24. Therefore, with regard to claims 2-14, please see claims 2-14 of the copending application '960.

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,681,038 (referred as the patent '038 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding claim 1, claim 1 of the patent '038 teaches a method for visually inspecting electronic component assembly of a variety of components (see lines 1-2), said method comprises:

positioning said assembly comprising a plurality of surface-mounted components of different types, colors, orientations and terminal lead spacings, within the view of a color digitizing camera (see lines 3-8);

obtaining via said camera, an image of said assembly including said surface-mounted components (see lines 9-10);

scanning said image to obtain a record of observed features including color, type, location and orientation of a variety of surface-mounted components, and terminal lead spacing data (see lines 11-14);

maintaining a database of a plurality of visually perceptible parameters of said features including colors (see lines 15-16);

numerically analyzing each of said observed features under a plurality of said visually perceptible parameters to locate defects therein (see lines 17-19); and

generating a graphical display indicating said defects (see lines 20-22).

While claim 1 of the patent '038 does not disclose expressly inspecting an electronic component assembly, claim 1 of the patent '038 does disclose inspecting a single electronic component assembly that of "inspecting electronic component assemblies".

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to inspect an electronic component assembly. Applicant has not disclosed that "inspecting an electronic component assembly" provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either a single electronic component assembly or a plural electronic component assemblies because the inspection performs the same function on both a single electronic component assembly or a plural electronic component assemblies in order to obtain defects.

Therefore, it would have been obvious to one of ordinary skill in this art to modify claim 1 of the patent '038 to obtain the invention as specified in instant claim 1.

Regarding claim 2, claim 1 of the patent '038 further teaches wherein said camera is a color digitizing camera of at least 4 million pixel resolution (see lines 7-8).

Regarding claim 3, claim 3 of the patent '038 teaches wherein said numerical analyzing (see lines 1-2) comprises: comparing said record of observed features against a record of acceptable values (see lines 3-4); and identifying said defects from said record of observed features which do not fall within said values (see lines 5-6).

Regarding claim 4, claim 4 of the patent '038 teaches wherein said maintaining comprises entering assembly layouts including component type locations and orientation into said database (see lines 1-4).

Regarding claim 5, claim 5 of the patent '038 teaches wherein said entering comprises interpreting a computer-aided design file describing said assembly (see lines 1-3).

Regarding claim 6, claim 6 of the patent '038 teaches identifying said assembly via a visual cue on the surface of said assembly, read by said camera (see lines 2-3); and categorizing said assembly within one of a plurality of assembly types (see lines 4-5).

Regarding claim 7, claim 7 of the patent '038 teaches wherein said step of positioning comprises journaling said assembly along a conveyer (see line 3); and securing said assembly within view of said camera, wherein said securing has an acceptable tolerance coarser than two hundredths of an inch (see lines 4-6).

Regarding claim 8, claim 8 of the patent '038 teaches wherein said obtaining comprises: scanning a first course resolution image of said assembly (see line 3); identifying a potentially defective region of said assembly (see lines 4-5); and scanning a first fine resolution image of said region (see line 6).

Regarding claim 9, claim 9 of the patent '038 teaches which further comprises cataloging said list of defects (see lines 1-2).

Regarding claim 10, claim 10 of the patent '038 teaches wherein said step of generating comprises: displaying a template representing said assembly (see lines 2-3); and displaying a distinct static visual icon for each of said defects at a location on said template corresponding to the location each of said defects on each of said assembly (see lines 4-7).

Regarding claim 11, claim 11 of the patent '038 teaches wherein said visual icon comprises indication of a type of defect (see lines 1-2).

Regarding claim 12, claim 12 of the patent '038 teaches wherein said camera is mounted within an enclosure supported by wheels (see lines 1-2).

Regarding claim 13, claim 13 of the patent '038 teaches wherein said obtaining comprises positioning said camera a distance of at least 12.7 centimeters above said board (see lines 1-3).

Regarding claim 14, claim 2 of the patent '038 teaches wherein said analyzing comprises using a numerical rule-based color image analysis algorithm (see lines 1-3).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M Dang whose telephone number is 703-305-1464. The examiner can normally be reached on Monday to Thursday from 6:30AM to 5:00PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dmd
9/1/04

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